

Interactive comment on “Observatory crustal magnetic biases during CHAMP satellite mission” by G. Verbanac et al.

Anonymous Referee #1

Received and published: 3 February 2015

An overall focus for this paper is lacking. It is not clear whether the point of the paper is to (a) say something about temporal variations in crustal fields in vicinity of observatories or (b) demonstrate that well-known characteristics of external field variations can be propagated through to observatory biases. The paper concentrates on the latter but it is the former that is more interesting, especially for operators of observatories sited in anomalous areas.

To access possible genuine variations in the crustal field one should compare like with like. The observatory monthly means include external field signals but only the core field variations from the GRIMM model were used. It is therefore hardly surprising that annual and semi-annual signals are seen in the biases. More elaborate processing of observatory data is required before they can be compared with core field values from

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a model so as to reveal something about the crustal field.

A couple of minor points: the Oersted epoch is incorrect in the abstract and introduction and two references to papers in Geophys. J. R. Astron. Soc. are missing “Geophys.”

Interactive comment on Solid Earth Discuss., 7, 495, 2015.

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